## REMARKS

Claims 32-59 are pending. New claim 60 is added. Illustrative support for new claim 60 can be found, for example, in paragraphs 33, 63 and 66 of the originally-filed specification. Entry and consideration of new claim 60 is respectfully requested. In the above referenced Office Action, claims 32-59 stand rejected. In the previous response, Applicant articulated distinctions between the pending claims and the cited reference thus indicating that the references are insufficient to anticipate the claims. The content of the previous response is incorporated by reference in its entirety. Applicant respectfully traverses the rejections and requests a withdrawal of all rejections as set forth below.

Claims 32-59 stand variously rejected under 35 U.S.C. 102(e) as being anticipated by Park (U.S. 2003/0153954) and/or Van Dam (U.S. 6,836,682). The Examiner's position with regard to Park is that Park's disclosure of sensing intrinsic cardiac electrical phenomena based on monitored signals and generating cardiac pacing pulses with timing based on the intrinsic cardiac electrical phenomena to overdrive pace the heart anticipates detecting whether an autonomous intrinsic signal component is present within the sensed ventricular signal resulting from a delivered pacing pulse. Park does not specifically teach a method for sensing the intrinsic heart rate. However, sensing a purely intrinsic heart rate in and of itself is not new. For example, in one method for sensing an intrinsic heart rate, a pacemaker senses cardiac signals, typically R-waves, associated with intrinsic depolarizations, *i.e.* in the absence of pacing pulses, and measures the intervals between the intrinsic R-waves. One having ordinary skill in the art would recognize that sensing R-waves, based for example on an R-wave exceeding a sensing threshold, in the absence of pacing, would enable determination of an intrinsic heart rate. Park bases an overdrive pacing rate on an intrinsic heart rate to overdrive pace the heart to prevent sleep apnea. However, this type of sensing of intrinsic events relates to sensing purely intrinsic events for determining an intrinsic heart rate, in the absence of pacing,

and is irrelevant to sensing intrinsic activity present within a response to a pacing pulse.

Events sensed following a pacing pulse intended to capture the heart are typically classified as a paced event. The pending claims address the situation where the response to the pacing pulse intended to capture the heart is a result of both the pacing pulse and autonomous intrinsic activity. Park never suggests detecting an intrinsic signal component present in a sensed ventricular signal that results from a delivered pacing pulse, never provides a reason to do so, and fails to teach or suggest a method for doing so. As such, while Park's device is able to sense purely intrinsic events for determining an intrinsic heart rate, detecting an intrinsic signal component within the sensed ventricular signal resulting from the delivered pacing pulse is clearly not taught. For at least this reason, Applicant respectfully submits that the rejection is improper and should be withdrawn.

Van Dam teaches a V event as either a sense or a pace. As such, similar to Park, recognized events are either purely intrinsic events unassociated with a pacing pulse or a paced event. Van Dam does not distinguish between a paced response that is purely an evoked response, devoid of any autonomous intrinsic signal component, and a paced response that includes an autonomous intrinsic signal component. Van Dam is concerned with measuring QT intervals for controlling rate responsive pacing based on QT interval changes. QT interval measurements are not utilized for detecting an intrinsic component within a paced response. Like Park, van Dam never addresses detecting an intrinsic signal component within a signal resulting from a delivered pacing pulse, never provides a reason to detect an intrinsic signal component within a paced response, and never provides a method for doing so. For at least this reason, Applicant respectfully submits the rejection based on van Dam is also improper and should be withdrawn.

New claim 60 recites "detecting whether an autonomous intrinsic signal component is present within the sensed ventricular signal response to the

delivered pacing pulse". For the same or similar reasoning as set forth above, Applicant submits claim 60 is allowable.

Applicant asserts that the remarks presented herein are fully responsive to the Office Action and are sufficient to overcome the rejections presented in the Office Action. However, there may be other arguments to be made as to why the pending claims are patentable. Applicant does not concede any such arguments by having not presented them herein. Withdrawal of the instant rejections and issuance of a Notice of Allowance is respectfully requested.

Please grant any extension of time, if necessary for entry of this paper, and charge any fee due for such extension or any other fee required in connection with this paper to Deposit Account No. 13-2546.

Respectfully submitted,

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Date

/Daniel G. Chapik/
Daniel G. Chapik
Reg. 43,424
Telephone: (763) 526-0940
Customer No. 27581